Section I (Amendments to the Claims)

Please amend claims 20, 22, 23, 27, 33, 34, and 38, cancel claim 28, and add new claims 46-58 as provided in the following listing of the claims 1-58 of the application.

1-19. **(Cancelled)**

20. **(Currently amended)** A mixing apparatus comprising:

a motor;

a hollow mixing tank having at least one interior wall;

a mixing paddle having an associated support rod ~~at least one mixing element~~ mechanically coupled to the motor;

a sealed sleeve having a closed end protruding into the interior of the hollow mixing tank, having at least one exterior wall, and defining a cavity containing the mixing paddle ~~at least a portion of the at least one mixing element~~;

wherein the sealed sleeve is sealingly and permanently welded to the mixing tank, the at least one interior wall of the mixing tank and the at least one exterior wall of the sealed sleeve encloses a volume, and the sealed sleeve serves as an isolation barrier between the volume and the mixing paddle ~~any portion of the at least one mixing element~~.

21. **(Previously presented)** The apparatus of claim 20 wherein the mixing tank and the sealed sleeve joined thereto are disposable.

22. **(Currently amended)** The apparatus of claim 20 wherein the mixing paddle ~~at least one mixing element comprises a plurality of mixing elements, and a mixing element of the plurality of mixing elements~~ is permanently retained by the sealed sleeve.

23. **(Currently amended)** The apparatus of claim 20 wherein the mixing paddle ~~at least one mixing element~~ is disposable.

24. **(Previously presented)** The apparatus of claim 20, wherein any of the mixing tank and the sealed sleeve comprises a material characterized by any of a stretchable, collapsible, pliable, and elastic property.

25. **(Previously presented)** The apparatus of claim 20 wherein any of the mixing tank and the sealed sleeve comprises a polymeric film.

26. **(Previously presented)** The apparatus of claim 20 wherein the polymeric film is substantially transparent.

27. **(Currently amended)** The apparatus of claim 20, wherein the support rod ~~at least one mixing element~~ is removably coupled to the motor.

28. **(Cancelled)**

29. **(Previously presented)** The apparatus of claim 20 wherein the mixing tank defines at least one resealable access port.

30. **(Previously presented)** The apparatus of claim 20, wherein the sealed sleeve includes an aperture-defining coupling guide.

31. **(Previously presented)** The apparatus of claim 24, further comprising a substantially open support frame coupled to the mixing tank with at least one coupling element, the support frame defining a plurality of windows and being adapted to support the mixing tank.

32. **(Previously presented)** The apparatus of claim 31, wherein the motor is supported by the frame.

33. **(Currently amended)** A mixing apparatus comprising:

a motor;
a hollow mixing tank having at least one interior wall;
a sealed sleeve having a closed end protruding into the tank, defining a cavity, and having

at least one exterior wall;

a welded joint establishing a permanent seal between the sealed sleeve and the tank; and

a mixing paddle ~~at least one mixing element~~ disposed ~~at least partially~~ within the cavity and having an associated support rod mechanically coupled to the motor;

wherein the at least one interior wall of the mixing tank and the at least one exterior wall of the sealed sleeve defines an interior volume, and the sealed sleeve prevents contact between the mixing paddle ~~any portion of the at least one mixing element~~ and the interior volume.

34. **(Currently amended)** A mixing apparatus comprising:

a motor;

a hollow mixing tank fabricated of a substantially non-rigid material and having at least one interior wall;

a sealed sleeve welded to ~~and protruding into~~ the tank and having a closed end protruding into the tank;

a mixing paddle ~~at least one mixing element~~ disposed ~~at least partially~~ within the sleeve and having an associated shaft mechanically coupled to the motor; and

a substantially open support frame defining a plurality of windows, coupled to the mixing tank with at least one coupling element, and adapted to support the mixing tank;

wherein the sealed sleeve serves as an isolation barrier between the mixing paddle ~~at least one mixing element~~ and the at least one interior wall.

35. **(Previously presented)** The apparatus of claim 34 wherein the substantially non-rigid material comprises a substantially transparent film.

36. **(Previously presented)** The apparatus of claim 34, wherein the motor is supported by the frame.

37. **(Previously presented)** The apparatus of claim 34 wherein the volume is in a range of between about 5 liters and 10,000 liters.

38. **(Currently amended)** A mixing method comprising the steps of:

providing a mixing apparatus comprising a hollow mixing tank having a cavity-defining sealed sleeve with a closed end protruding therein and with the sleeve joined thereto to form a unified contiguous structure, and a mixing paddle ~~at least one mixing element at least partially~~ enveloped by the cavity, with an interior wall of the tank and an interior wall of the sealed sleeve defining an interior volume;

supplying at least two components of a mixture to the interior volume; and

mixing the at least two components using the mixing paddle ~~at least one mixing element~~, without permitting contact between the mixing paddle ~~at least one mixing element~~ and any of the at least two components, to form a mixture.

39. **(Previously presented)** The method of claim 38, further comprising the steps of:

extracting at least a portion of the mixture from the tank; and

disposing of the tank.

40. **(Previously presented)** The method of claim 38, further comprising the step of storing the mixture inside the tank.

41. **(Previously presented)** A mixing apparatus comprising:

a motor;

a hollow mixing tank having at least one interior wall and a substantially central vertical axis;

a mixing paddle having an associated shaft mechanically coupled to the motor; and

a sealed sleeve protruding into the interior of the hollow mixing tank, having at least one exterior wall, defining a cavity containing the mixing paddle and at least a portion of the shaft;

wherein the at least one interior wall of the mixing tank and the at least one exterior wall of the sealed sleeve encloses a volume, with the sealed sleeve serving as an isolation barrier to isolate the volume from the mixing paddle and the shaft; and

wherein the mixing paddle contained within the sealed sleeve is driven by the motor and is adapted to travel within the tank through a defined path at a nonzero angle relative to the central vertical axis.

42. **(Previously presented)** The mixing apparatus of claim 41, wherein the tank includes a lower surface and the defined path includes a substantially circular path within a plane that is substantially parallel to the lower surface.

43. **(Previously presented)** The mixing apparatus of claim 41, wherein the sealed sleeve is sealingly and permanently welded to the mixing tank.

44. **(Previously presented)** The mixing apparatus of claim 41, wherein any of the mixing tank and the sealed sleeve comprises a polymeric film.

45. **(Previously presented)** The apparatus of claim 41, further comprising a substantially open support frame coupled to the mixing tank with at least one coupling element, the support frame defining a plurality of windows and being adapted to support the mixing tank and the motor.

46. **(New)** A mixing apparatus comprising:

a mixing tank having at least one interior wall and an integrated sleeve;

the sleeve having an open end joined to the mixing tank along an immovable sealed joint, a closed end protruding into the interior of the mixing tank, at least one exterior wall, and defining a cavity having a wider portion toward the closed end and a relatively narrower portion toward the open end; and

a mixing element disposed substantially within the wider portion of the cavity and adapted to engage a shaft insertable through the open end of the sleeve;

wherein the at least one interior wall of the mixing tank and the at least one exterior wall of the sleeve encloses a volume, and the sleeve serves as an isolation barrier between the volume and the mixing element.

47. **(New)** The mixing apparatus of claim 46, wherein any of the mixing tank and the sealed sleeve comprises a polymeric film.

48. **(New)** The mixing apparatus of claim 46, wherein the mixing element has a width greater than the narrower portion of the cavity.

49. **(New)** The mixing apparatus of claim 46, wherein the mixing element has width that is substantially greater than a diametrical or longitudinal dimension of the shaft.

50. **(New)** The mixing apparatus of claim 46, wherein the mixing element is a paddle or a blade.

51. **(New)** The mixing apparatus of claim 46, wherein the sleeve is form fitted to the mixing element.

52. **(New)** The mixing apparatus of claim 46, wherein the immovable sealed joint comprises a welded joint between the sealed sleeve and the mixing tank.

53. **(New)** The mixing apparatus of claim 46, further comprising a shaft coupled to the mixing element and adapted to be coupled to a motor.

54. **(New)** The mixing apparatus of claim 53, wherein the mixing tank has a substantially central vertical axis, and the mixing element and the shaft are adapted to travel within the tank through a defined path at a nonzero angle relative to the substantially central vertical axis when the shaft is coupled to the motor and the motor is operating.

55. **(New)** The mixing apparatus of claim 46, wherein the mixing tank comprises at least one resealable access port.

56. **(New)** A mixing method comprising the steps of:
providing a mixing apparatus according to claim 46;
inserting a shaft through the open end of the sleeve to engage the mixing element;
supplying at least two components of a mixture to the volume; and
moving the mixing element with the shaft to mix the at least two components without permitting contact between the mixing element and any of the at least two components, to form a mixture.

57. (New) The method of claim 56, wherein the moving step comprises moving the mixing element within the tank through a defined path at a nonzero angle relative to a substantially central vertical axis of the tank.

58. (New) The method of claim 56, further comprising the steps of:
extracting at least a portion of the mixture from the tank; and
disposing of the tank.